09/516061
12/24/03

=> S L14 AND L7
L15 81 L14 AND L7

=> D 1-81 TI

=> S SEQUENCE/TI
72256 SEQUENCE/TI
37008 SEQUENCES/TI
L16 107231 SEQUENCE/TI
((SEQUENCE OR SEQUENCES)/TI)

=> S L16 AND L13
L17 477 L16 AND L13

=> S L16 AND L14
L18 136 L16 AND L14

=> D 1-136 TI

=> D 37,53 CBIB ABS

L18 ANSWER 37 OF 136 CAPLUS COPYRIGHT 2003 ACS on STN
2000:388525 Document No. 133:39121 ***Sequences*** of homologs (NL2, NL3, and NL6) of known ligands of TIE receptor ***tyrosine*** ***kinase*** . Fong, Sherman; Ferrara, Napoleone; Goddard, Audrey; Godowski, Paul J.; Gurney, Austin L.; Hillan, Kenneth; Williams, P. Mickey (Genentech, Inc., USA). U.S. US 6074873 A 20000613, 50 pp., Cont.-in-part of U.S. Ser. No. 934,494. (English). CODEN: USXXAM. APPLICATION: US 1998-143068 19980828. PRIORITY: US 1997-934494 19970919.
AB The invention provides protein and cDNA sequences of homologs (NL2, NL3, and NL6) of known ligands of TIE receptor tyrosine kinase. NL3 has a fibrinogen-like domain, has homol. with human TL-1 and human TL-2, and it is of particular interest in this invention. The invention also relates to the effects the provided TIE ligand homologs, esp. NL3, have on cell proliferation, apoptosis, and angiogenesis.

L18 ANSWER 53 OF 136 CAPLUS COPYRIGHT 2003 ACS on STN
1998:187324 Document No. 128:266352 Homologous ***sequences*** in the primary structures of ***tyrosine*** ***kinase*** receptors of the insulin superfamily and protein-substrates 1 and 2 of the insulin receptor. Shpakov, A. O. (I.M. Sechenov Institute of Evolutionary Physiology and Biochemistry, Russian Academy of Sciences, Russia). Ukrainskii Biokhimicheskii Zhurnal, 69(4), 39-48 (Russian) 1997. CODEN: UBZHD4. ISSN: 0201-8470. Publisher: Institut Biokhimii im. A. V. Palladina NAN Ukrainy.
AB Ligand-activated tyrosine kinase receptors of insulin superfamily peptides can realize the signal transduction to the SH2-proteins phosphatidylinositol 3-kinase (P13K), protein phosphotyrosine phosphatase (PPTP), and GRB2-adaptor protein via 2 pathways: (1) with participation of specific proteins, the insulin receptor substrates 1 and 2 (IRS1/IRS2); and (2) direct interaction between receptors and SH2-proteins (without IRS-proteins). Consequently, structurally related determinants, which are responsible for the interaction with SH2-proteins, must be present in the receptor and IRS mols. The comparative anal. of amino acid sequences (AAS) of human receptors for insulin, insulin-like growth factor-I and insulin-related peptide and AAS of IRS1/IRS2 proteins allow one to identify for the first time the long homologous regions in their primary structures. After alignment of AAS of the regions, the sited-targets for tyrosine phosphorylation, most important for functional activity of tyrosine kinase receptors and IRS proteins, coincided with each other. These results show that some homologous regions can have similar function. Thus, the regions can be involved in coupling the receptors and IRS-proteins with SH2-proteins, such as P13K, PPTP, GRB2-adaptor protein. It is also possible that the homologous regions of tyrosine kinase receptors and IR1/IRS2 proteins mediate the interaction between their proteins.